

MINISTRY OF HEALTH PROTECTION OF UKRAINE

ODESSA NATIONAL MEDICAL UNIVERSITY

Department of Orthopedic Dentistry

APPROVED



Vice-rector for scientific and pedagogical work
Eduard BURYACHKIVSKY

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PRODUCTION WORKING PROGRAM

MEDICAL PRACTICE IN ORTHOPEDIC DENTISTRY

Higher level: second (master's)

Field of knowledge: 22 "Health care"

Specialty: 221 "Dentistry"

Educational and professional: "Dentistry"

2023

The working program is based on the educational and professional program "Dentistry" of training specialists of the second (master's) level of higher education in the specialty 221 "Dentistry" of the

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Developers:

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The work program was approved at the meeting of the Department of Orthopedic Stomatology.

Protocol No. 11 of "30" 06 2023.

Head of the department _____ Pavlo ROZHKO

Agreed with the guarantor of the EPP _____ Anatoliy GULYUK

Approved by the subject cycle methodical commission for dental disciplines of ONMedU.

Protocol No. 1 of "28" 08 2023

Head of the subject cycle methodical commission for dental disciplines
_____ Volodymyr KRYKLYAS

Revised and approved at the meeting of the Department of Orthopedic Dentistry Protocol No. _____ from "___" _____ 20__ year.

Head of the department _____ Pavlo ROZHKO

Revised and approved at the meeting of the Department of Orthopedic Dentistry Protocol No. _____ from "___" _____ 20__ year.

Head of the department _____ Pavlo ROZHKO

1. Description of production practice

Name of indicators	Field of knowledge, specialty, specialization, level of higher education	Characteristic production practice
The total number of: Credits: 1.5 Hours: 45	Branch of knowledge 22 "Health care" Specialty 221 "Dentistry" Level of higher education Second (master's)	<i>Full-time education</i>
		Mandatory educational component
		<i>Year of training 4</i>
		<i>Semester VIII</i>
		<i>Lectures (0 hours)</i>
		<i>Seminars (0 hours)</i>
		<i>Practical (18 hours)</i>
		<i>Laboratory (0 hours)</i>
		<i>Independent work (27 hours)</i> <i>including individual tasks (0 hours)</i>
		<i>Final control form- KPI</i>

2. Purpose and tasks of production practice— competencies, program learning outcomes

Goal practices the achievement of goals established on the basis of the OPP for the training of a doctor in the specialty "Dentistry" and is the basis for building the content of this course. The description of goals is formulated through skills in the form of target tasks. On the basis of the final goals, specific goals are formulated in the form of certain skills, target tasks that ensure the achievement of the final goal of studying the discipline.

Task: teach students of higher education to examine patients in the clinical office using dental equipment and tools; to teach applicants to analyze diagnostic models of patients with various types of pathology of the maxillofacial apparatus; on the basis of clinical thinking, choose methods of restoring defects of teeth and dental rows; to teach applicants to perform practical skills during the clinical reception of patients with various defects of the dento-maxillofacial apparatus; teach applicants to solve situational problems with a clinical orientation.

The practice process is aimed at forming elements of the following competencies:

Integral competence (IR):

IR. The ability to solve typical and complex specialized tasks and problems in the field of health care in the specialty "Dentistry", in professional activities or in the learning process, which involves conducting research and/or implementing innovations and is characterized by the complexity and uncertainty of conditions and requirements.

general (ZK):

- ZK3. Ability to apply knowledge in practical activities.
- ZK6. Skills in using information communication technologies.
- ZK8. Ability to adapt and act in a new situation.
- ZK9. Ability to identify, pose and solve problems.
- ZK10. The ability to be critical and self-critical.
- ZK11. Ability to work in a team.

Special (SK):

- SK1. Ability to collect medical information about the patient and analyze clinical data.
- SK2. The ability to interpret the results of laboratory and instrumental research.
- SK3. Ability to diagnose: determine preliminary, clinical, final, accompanying diagnosis, emergency conditions.
- SK4. The ability to plan and carry out measures for the prevention of diseases of the organs and tissues of the oral cavity and maxillofacial area.
- SK6. The ability to determine a rational regimen of work, rest, and diet in patients in the treatment of diseases of the organs and tissues of the oral cavity and maxillofacial region.

SK7. The ability to determine the management tactics of patients with diseases of the organs and tissues of the oral cavity and maxillofacial region with accompanying somatic diseases.

SK8. Ability to perform medical and dental manipulations.

SK9. The ability to treat the main diseases of the organs and tissues of the oral cavity and maxillofacial area.

SK14. Ability to maintain regulatory medical documentation.

Program learning outcomes (PRL):

PRN 1. Identify and identify leading clinical symptoms and syndromes (according to list 1); according to standard methods, using the previous data of the patient's history, the data of the patient's examination, knowledge about the person, his organs and systems, establish a probable nosological or syndromic preliminary clinical diagnosis of a dental disease (according to list 2)

PRN 2. Collect information about the patient's general condition, evaluate the patient's psychomotor and physical development, the condition of the maxillofacial organs, based on the results of laboratory and instrumental studies, evaluate information about the diagnosis (according to list 5).

PRN 3. Prescribe and analyze additional (mandatory and optional) examination methods (laboratory, X-ray, functional and/or instrumental) according to list 5, of patients with diseases of organs and tissues of the oral cavity and maxillofacial region for differential diagnosis of diseases (according to list 2).

PRN 4. To determine the final clinical diagnosis in compliance with the relevant ethical and legal norms, by making a reasoned decision and logical analysis of the received subjective and objective data of clinical, additional examination, carrying out differential diagnosis under the control of the managing physician in the conditions of a medical institution (according to the list 2.1).

PRN 6. Plan and implement dental disease prevention measures among the population to prevent the spread of dental diseases.

PRN 7. Analyze the epidemiological situation and carry out mass and individual, general and local medicinal and non-medicinal prevention of dental diseases.

PRN 8. Determine the approach, plan, type and principle of treatment of dental disease (according to list 2) by making a reasoned decision according to existing algorithms and standard schemes.

PRN 10. Determine the tactics of managing a dental patient with somatic pathology (according to list 3) by making a reasoned decision according to existing algorithms and standard schemes.

PRN 11. To carry out treatment of basic dental diseases according to existing algorithms and standard schemes under the control of the head physician in the conditions of a medical institution (according to list 2.1).

PRN 14. Analyze and evaluate government, social and medical information using standard approaches and computer information technologies.

PRN 16. To form goals and determine the structure of personal activity based on the result of the analysis of certain social and personal needs.

PRN 17. Follow a healthy lifestyle, use self-regulation and self-control techniques.

PRN19. To comply with the requirements of ethics, bioethics and deontology in their professional activities.

PRN 20. To organize the required level of individual safety (own and the persons they care about) in case of typical dangerous situations in the individual field of activity.

PRN 21. Perform medical manipulations on the basis of a preliminary and/or final clinical diagnosis (according to lists 2, 2.1) for different segments of the population and in different conditions (according to list 6).

PRN 22. To perform medical stomatological manipulations on the basis of preliminary and/or final clinical diagnosis (according to lists 2, 2.1) for different segments of the population and in different conditions (according to list 7).

As a result of the internship, the student of higher education must:

- **Know:** structure and functions of the orthopedic department and dental laboratory. Rules for filling out medical documentation. Etiology, pathogenesis, clinic, diagnosis, differential diagnosis, orthopedic treatment. Clinical and laboratory stages of manufacturing various types of fixed and removable prostheses.

- **Be able:**

The main tasks of the internship are: to teach applicants to examine patients in a clinical office using dental equipment and tools; to teach applicants to analyze diagnostic models of patients with various types of pathology of the maxillofacial apparatus; on the basis of clinical thinking, choose methods of restoring defects of teeth and dental rows; to teach applicants to perform practical skills during the clinical reception of patients with various defects of the dento-maxillofacial apparatus; teach applicants to solve situational problems with a clinical orientation.

3. Content of practice

Topic No. 1 Acquaintance with the orthopedic dentistry clinic. Familiarity with the dental laboratory.

Acquaintance with the orthopedic dentistry clinic. Requirements for a dental office. Documentation of the orthopedic office. Rules for its filling. Tools and materials used in the clinic of orthopedic dentistry. Methods of asepsis and antiseptics in the dental office. Familiarity with the dental laboratory. Special premises of the dental laboratory (plaster room, polishing room, lithium room). Dental laboratory equipment. Basic provisions of safety equipment.

Topic No. 2. Examination of a patient in a clinic of orthopedic dentistry. Clinical and additional (special) examination methods. Preliminary and final diagnosis.

Patient examination algorithm in orthopedic dentistry.

Basic clinical methods of examination of dental patients. Functional and graphical methods of studying air pollution. Laboratory-instrumental methods of research of SHLD. A method of describing a target radiograph. Types of lesions of the dental and jaw system, which are subject to orthopedic treatment. Peculiarities of diagnosis in the clinic of orthopedic dentistry. Drawing up an orthopedic treatment plan and studying methods of preparing the patient for prosthetics. Rules for filling out medical history. Quality assessment criteria, orthopedic structures.

Topic No. 3. Testimony, etclinical and laboratory stages of manufacturing various types of fixed prostheses.

Testimony, etclinical and laboratory stages of the production of tabs. Testimony, etclinical and laboratory stages of manufacturing pin structures. Testimony, etclinical and laboratory stages of manufacturing stamped metal, plastic and combined crowns. Testimony, etclinical and laboratory stages of production of solid-cast, metal-plastic and metal-ceramic crowns. Testimony, etclinical and laboratory stages of manufacturing stamped-soldered bridge prostheses. Testimony, etclinical and laboratory stages of production of one-piece, metal-plastic and metal-ceramic bridge prostheses.

Topic No. 4. Testimony, etclinical and laboratory stages of manufacturing various types of partial removable prostheses.

Indications and selection of the construction of partial removable prostheses. Selection of supporting teeth. Methods of fixing partial removable prostheses. Clinical and laboratory stages of manufacturing partial removable lamellar prostheses. Clinical and laboratory stages of the production of brace prostheses. Clinical and laboratory stages of manufacturing acrylic-free partial removable plate prostheses. Clinical and laboratory stages of manufacturing removable prostheses with locking fasteners. Testimony, etclinical and laboratory stages of making immediate prostheses. Methods of repairing partial removable prostheses.

Topic No. 5. Clinical laboratory stages of manufacturing complete removable prostheses. The influence of the bases of lamellar prostheses on the tissues of the oral cavity.

Clinical and laboratory stages of manufacturing complete removable prostheses. Methods of manufacturing complete removable prostheses. The concept of fixation, stabilization and equilibrium of the PZP. Fixation methods (mechanical, biomechanical, physical and biophysical) of PZP. Principles of correction. Methods of repairing PZP. Causes of PZP failure. Etiology, clinic of diseases of the mucous membrane of the oral cavity arising under the influence of removable prostheses, classification of prosthetic stomatitis Vasylenko Z.S. and Gavrilova E.H. Principles of differential diagnosis and treatment of diseases of the mucous membrane of the oral cavity arising under the influence of complete removable prostheses.

4. Practice structure

Topic	In total	Practical training	SRS
Topic No. 1 Acquaintance with the orthopedic dentistry clinic. Familiarity with the dental laboratory.	6	2	4
Topic No. 2. Examination of a patient in a clinic of orthopedic dentistry. Clinical and additional (special) examination methods. Preliminary and final diagnosis.	8	4	4
Topic No. 3. Testimony, etc clinical and laboratory stages of manufacturing various types of fixed prostheses.	8	4	4
Topic No. 4. Testimony, etc clinical and laboratory stages of manufacturing various types of partial removable prostheses.	8	4	4
Topic No. 5. Clinical laboratory stages of manufacturing complete removable prostheses. The influence of the bases of lamellar prostheses on the tissues of the oral cavity.	8	4	4
KPI	7		7
In total	45	18	27

5. Topics of lectures/seminars/practical/laboratory classes

5.1. Topics of lectures

Lectures are not provided.

5.2. Topics of seminar classes

Seminar classes are not provided.

5.3. Topics of practical classes

No Topics	Topic name	Number of hours
1.	Topic No. 1 Acquaintance with the orthopedic dentistry clinic. Familiarity with the dental laboratory.	2
2.	Topic No. 2. Examination of a patient in a clinic of orthopedic dentistry. Clinical and additional (special) examination methods. Preliminary and final diagnosis.	4
3.	Topic No. 3. Testimony, etc clinical and laboratory stages of manufacturing various types of fixed prostheses.	4
4.	Topic No. 4. Testimony, etc clinical and laboratory stages of manufacturing various types of partial removable prostheses.	4
5.	Topic No. 5. Clinical laboratory stages of manufacturing complete removable prostheses. The influence of the bases of lamellar prostheses on the tissues of the oral cavity.	4
	In total	18

5.4. Topics of laboratory classes

Laboratory classes are not provided.

6. Independent work of a student of higher education

No topics	Topic name	Number of hours
1.	Preparation for a practical lesson Topic No. 1 Acquaintance with the orthopedic dentistry clinic. Familiarity with the dental laboratory.	4

2.	Preparation for practical training Topic No. 2. Examination of a patient in a clinic of orthopedic dentistry. Clinical and additional (special) examination methods. Preliminary and final diagnosis.	4
3.	Preparation for a practical lesson Topic No. 3. Testimony, etc. clinical and laboratory stages of manufacturing various types of fixed prostheses.	4
4.	Preparation for a practical lesson Topic No. 4. Testimony, etc. clinical and laboratory stages of manufacturing various types of partial removable prostheses.	4
5.	Preparation for the practical lesson Topic No. 5. Clinical and laboratory stages of manufacturing complete removable prostheses. The influence of the bases of lamellar prostheses on the tissues of the oral cavity.	4
6.	Preparation for KPI	7
	In total	27

7. Teaching methods

Practical training: is based on previously prepared methodical material — a set of tasks of varying complexity to be performed by students of higher education in class, diagnostic tools. It includes monitoring the knowledge, skills and abilities of students of higher education, posing a general problem by the teacher and discussing it with the participation of students of higher education, completing tasks with their discussion.

Independent work: development of educational material, preparation for practical classes. Independent work with recommended basic and additional literature, with electronic information resources.

8. Forms of control and evaluation methods (including criteria for evaluating learning outcomes)

Current control: oral survey, evaluation of reports and the ability to formulate and defend one's position, evaluation of activity in the lesson, evaluation of the performance of practical skills. At the last lesson of the academic year, the current academic performance is calculated - the average current score (arithmetic average of all current grades on a traditional scale, rounded to two decimal places).

Final control: KPI

Evaluation of the current educational activity in a practical session: oral survey, evaluation of reports and the ability to formulate and defend one's position, evaluation of activity in the lesson, evaluation of the performance of practical skills.

Evaluation criteria for the practical lesson on the national scale:

Rating	Evaluation criteria
Excellent "5"	The applicant flawlessly mastered the theoretical material of the subject of the lesson, demonstrates deep and comprehensive knowledge of the relevant topic, the basics of scientific primary sources and recommended literature, thinks logically and constructs an answer, freely uses the acquired theoretical knowledge in the analysis of practical material, expresses his attitude to certain problems, demonstrates a high level of assimilation of practical skills
OK "4"	The applicant has well mastered the theoretical material of the lesson, has the main aspects from primary sources and recommended literature, presents it in a reasoned way; has practical skills, expresses his thoughts on certain problems, but certain inaccuracies and errors are assumed in the logic of the presentation of theoretical content or in the performance of practical skills.
Satisfactory "3"	In general, the applicant has mastered the theoretical knowledge of the educational topic, orients himself in primary sources and recommended literature, but answers unconvincingly, confuses concepts, additional questions cause uncertainty or lack of stable knowledge in the student;

	when answering questions of a practical nature, reveals inaccuracies in knowledge, does not know how to evaluate facts and phenomena, connect them with future activities, makes mistakes when performing practical skills
Unsatisfactory "2"	The applicant has not mastered the educational material of the topic, does not know scientific facts, definitions, is almost not oriented in primary sources and recommended literature, lacks scientific thinking, practical skills are not formed.

Only those applicants who have fulfilled the requirements of the training program in the discipline, have no academic debt and their average score for the current educational activity in the discipline is at least 3.00 are admitted to KPI.

Evaluation of the results of the students' practice during the final control - comprehensive practical exam (KPI).

The methodology of final control in the form of KPI is unified and involves the use of standardized forms. The number of practical skills taught at KPI corresponds to the number of production practice profiles on the corresponding course under the corresponding OPP.

Evaluation of the winner is carried out according to a checklist. During the KPI, the applicant receives a ticket, and the examiners use a checklist for the corresponding ticket with reference answers and determine which mandatory component answers were fulfilled or not fulfilled by the acquirer.

Each point of the algorithm, depending on the complexity, is assigned a certain number of points. The specific weight (number of points) of each item may be different - depending on the number of items and the difficulty of performing a particular item. Some scenarios may have critical points, failing which the task is considered failed. Ambiguity of understanding should be excluded when forming checklist items.

When the applicant performs certain actions, he can receive "minus points", namely:

No	Evaluation criterion	Mark
1.	Unregulated action or attempt to communicate with the examiner, not provided for in the task	- 5
2.	The second unregulated action or attempt to communicate with the examiner, not provided for in the task	- 5
3.	The third unregulated action or attempt to communicate with the examiner, not provided for in the task	-5
4.	The fourth unregulated action or attempt to communicate with the examiner, not provided for in the task	- 5
5.	More than 4 unregulated actions	- 20
6.	Dangerous action (which will inevitably lead to deterioration of the patient's condition)	- 20
7.	Unacceptable behavior	- 20
8.	Damage to simulation equipment or inventory	- 20

The maximum score for completing a task at one station is 100 points. The KPI is considered completed if the applicant has scored at least 60% of the maximum number of points at each station.

The total KPI score is calculated as the arithmetic mean of all received scores for all KPI profiles held in the educational and production complex of innovative technologies of learning, informatization and internal monitoring of the quality of education of the university during the examination sessions at the end of the semester (autumn and spring) according to the schedule.

9. Distribution of points received by higher education applicants

The obtained average point for the academic discipline for applicants who successfully

mastered the work program of industrial practice is converted from the traditional four-point scale to points on a 200-point scale, as shown in the table:

Conversion table of a traditional assessment into a multi-point scale

Traditional four-point scale	Multipoint 200-point scale
Excellent ("5")	185 - 200
Good ("4")	151 - 184
Satisfactory ("3")	120-150
Unsatisfactory ("2")	Below 120

A multi-point scale (200-point scale) characterizes the actual success rate of each applicant in mastering the educational component. The conversion of the traditional grade (average score for the academic discipline) into a 200-point grade is performed by the information and technical department of the University.

According to the obtained points on a 200-point scale, the achievements of the applicants are evaluated according to the ECTS rating scale. Further ranking according to the ECTS rating scale allows you to evaluate the achievements of students from the educational component who are studying in the same course of the same specialty, according to the points they received.

The ECTS scale is a relative-comparative rating, which establishes the applicant's belonging to the group of better or worse among the reference group of fellow students (faculty, specialty). An "A" grade on the ECTS scale cannot be equal to an "excellent" grade, a "B" grade to a "good" grade, etc. When converting from a multi-point scale, the limits of grades "A", "B", "C", "D", "E" according to the ECTS scale do not coincide with the limits of grades "5", "4", "3" according to the traditional scale. Acquirers who have received grades of "FX" and "F" ("2") are not included in the list of ranked acquirers. The grade "FX" is awarded to students who have obtained the minimum number of points for the current learning activity, but who have not passed the final examination. A grade of "F" is assigned to students who have attended all classes in the discipline, but have not achieved a grade point average (3.00) for the current academic activity and are not admitted to the final examination.

Applicants who study in one course (one specialty), based on the number of points scored in the discipline, are ranked on the ECTS scale as follows:

Conversion of the traditional grade from the discipline and the sum of points on the ECTS scale

Evaluation on the ECTS scale	Statistical indicator
AND	Top 10% achievers
IN	The next 25% of earners
WITH	The next 30% of earners
D	The next 25% of earners
IS	The next 10% of earners

10. Methodical support

- Working program of practice
- Syllabus practices
- Methodical recommendations for practical classes
- Methodical recommendations for independent work

11. List of practical skills for KPI

1. Clinical and laboratory stages of making tabs.
2. Clinical and laboratory stages of manufacturing pin structures.
3. Clinical and laboratory stages of manufacturing stamped metal, plastic and combined crowns.
4. Clinical and laboratory stages of production of solid-cast, metal-plastic and metal-ceramic crowns.
5. Clinical and laboratory stages of manufacturing stamped and soldered bridge prostheses.
6. Clinical and laboratory stages of production of one-piece, metal-plastic and metal-ceramic bridge prostheses.

7. Clinical and laboratory stages of manufacturing partial removable lamellar prostheses.
8. Clinical and laboratory stages of the production of brace prostheses.
9. Clinical and laboratory stages of manufacturing acrylic-free partial removable plate prostheses.
10. Clinical and laboratory stages of manufacturing removable prostheses with locking fasteners.
11. Clinical and laboratory stages of manufacturing immediate prostheses.
12. Repair of partial removable prostheses.
13. Clinical and laboratory stages of manufacturing complete removable prostheses.
14. Correction of complete removable prostheses.
15. Repair of PZP.

12. Recommended Books

Main:

1. Orthopedic dentistry: textbook / M.M. Rozhko, V.P. Nespryadko, I.V. Paliichuk and others.
2. M.M. Rozhko, V.P. Nespryadko, I.V. Paliychuk et al. Prosthetic technique: textbook - Kyiv, "Knyga-plus", 2016. - 604 p.
3. Ishchenko P.V., Klyomin V.A., Kachalov R.H., Likhota A.M. Military orthopedic stomatology. - K.: Medical University "Medicine". -2018. -312 p.
4. Gasyuk P.A., Kostenko E.Ya., Shcherba V.V., Savchyn V.Ya. Prosthetics for complete loss of teeth. – Uzhhorod, 2013. Zakarpattia publishing house. - 222 p.

Additional:

1. Dentistry: in 2 books. — Book 1: textbook (University III-IV years) / M.M. Rozhko, Z.B. Popovych, V.D. Kuroyedova .. -K.: VSV "Medicine", 2012. - 872 p.
2. Chulak L.D., Shuturminskyi V.G. Clinical and laboratory stages of manufacturing dental prostheses. Odesa. Odesa honey. University, 2009, 318 p
3. Makeev V.F., Stupnytskyi R.M. Theoretical foundations of orthopedic stomatology (educational manual). –Lviv: LNMU named after Danylo Halytskyi, 2010, -394 p.
4. Flis P.S., Bannyk T.M. Technique of manufacturing removable prostheses.-K.: Medicine. - 2008. - 254.
5. Gitlan E.M., Krot M.K. Manual on bygel prosthetics. - K.: Zdorovya, 2001. - 140p.
6. Humetskyi R.A., Rozhko M.M., Zavadka O.E., Skrypnikov P.M. Complications of local anesthesia in the maxillofacial region: Manual in 3 volumes - Lviv: Ivano-Frankivsk: Poltava: Nautilus Publishing House, 2002. - 231 p.
7. Korol M.D., Korobeynikov L.S., Kindiy D.D., Yarkovy V.V. Ojubeiska O.D. Tactics of curation of patients in the clinic of orthopedic dentistry. Poltava: Astraya, 2003 – 52 p.
8. Nidzelskyi M.Ya. Mechanisms of adaptation to dental prostheses. – Poltava: Techservice Company LLC, 2003. – 116 p.
9. Bida V.I. Replacement of dentition defects with fixed denture structures. Lecture. - Kyiv, 2001. - 26 p.

13. Electronic information resources

1. State Expert Center of the Ministry of Health of Ukraine <http://www.dec.gov.ua/index.php/ua/>
2. [Laura Mitchell](#), "An introduction to orthodontics", 2013 - 336 p.
3. National Scientific Medical Library of Ukraine <http://library.gov.ua/>
4. National Library of Ukraine named after V.I. Vernadskyi <http://www.nbuv.gov.ua/>